

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WISCONSIN

RIDDELL, INC.,

Plaintiff,

OPINION and ORDER

08-cv-711-bbc

v.

SCHUTT SPORTS, INC.,

Defendant.

In this patent infringement suit, plaintiff Riddell, Inc. contends that defendant Schutt Sports, Inc. is infringing certain claims of three patents plaintiff owns related to design improvements in football helmets. Schutt is asserting counterclaims for declaratory judgment of non-infringement, invalidity and inequitable conduct. Now before the court are Schutt's motion for summary judgment on Riddell's patent infringement claims and a related motion to strike expert testimony. (In an order entered on July 14, 2010, I granted Riddell's motion for summary judgment on Schutt's false advertising and deceptive trade practice claims. The parties have voluntarily dismissed their other claims related to false advertisement. Dkt. #70.)

I will grant Schutt's motion for summary judgment with respect to Riddell's

infringement claims requiring “notches” and a “jaw pad having . . . a 25% compression deflection of [at least] 8 pounds per square inch” because Riddell has failed to prove the accused products contain those requirements, either literally or by equivalence. I will deny Schutt’s motion with respect to Riddell’s remaining infringement claims and Schutt’s counterclaims for invalidity of claims requiring a “jaw flap,” a “jaw pad having . . . a 25% compression deflection of [at least] 8 pounds per square inch” or a connectable face guard. As for Schutt’s motion to exclude portions of the expert testimony of James Newman, I will deny that motion as unnecessary; the challenged portions of his testimony relate to the “notches” and “jaw pad” limitations that are no longer part of the case.

Before turning to the facts, I note that I have disregarded many of the parties’ proposed findings of fact, some because they are unnecessary to resolve the parties’ disputes, others because they are conclusory or inadmissible. Among the proposed facts I have disregarded are the parties’ attempts to construe claims or prove or disprove infringement through witnesses’ “interpreting” the claim language or assessing whether the accused products fall within the asserted claims. For example, Schutt includes many facts about what Riddell’s expert, its Rule 30(b)(6) witness or the inventor of the asserted patents has said about the meaning of certain claim terms at issue, or how Riddell’s expert has “interpreted” these terms. These are not admissible facts. A witness’s statement about the meaning of an asserted claim term, even an expert’s statement, is generally too conclusory to be of use. (On

the other hand, an expert's statement about how a term appearing in a claim *is used in the field* can be useful.)

Most of these witness statements relate to "concessions" about the meaning of the terms that Schutt has extracted during depositions. These statements are even less useful; often they do not represent the entire idea of the witness, but rather aim to show weaknesses and inconsistencies in the witness's position. For example, Schutt proposes a series of facts related to what Riddell's expert and the inventor concede about the meaning of the term "jaw flap" to bolster Schutt's position that the term is insolubly ambiguous. However, the question whether a term is insolubly ambiguous is a question of law that does not hinge on whether a party's experts are confused or imprecise about the scope of the term.

Similarly, Riddell proposes several facts related to statements from employees of Schutt or an outside designer of Schutt's helmets (Design Concepts) who express their understanding about whether the accused products contain features disclosed in the claims. Their statements about whether the products have a "notch" or a "jaw flap" are irrelevant to determining the meaning of the terms in the asserted claims and whether the products fall within the scope of those claims.

From the parties' proposed findings of fact and the record, I find the following facts to be material and undisputed.

UNDISPUTED FACTS

A. Parties

Both plaintiff Riddell, Inc. and defendant Schutt Sports, Inc. manufacture and sell sporting equipment, including football helmets and face guards. Riddell is the owner by assignment of U.S. Patents Nos. 6,934,971 ('971 patent); 7,240,376 ('376 patent); and 7,036,151 ('151 patent).

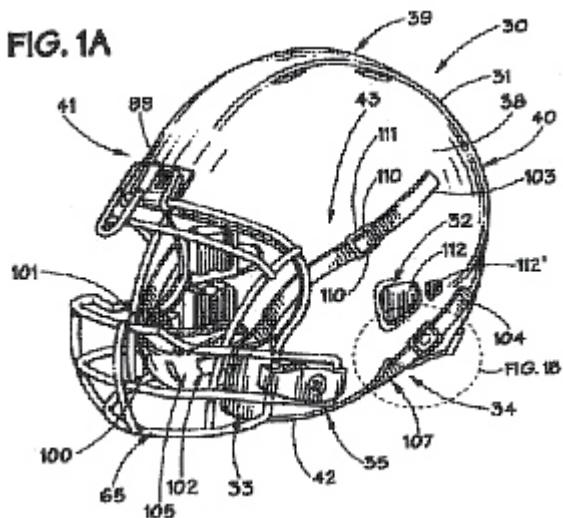
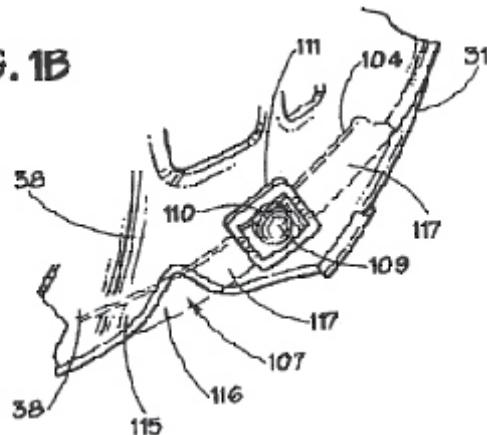
B. Asserted Claims

1. Claims requiring “notches” ('971 pat., cls. 42-47)

Claim 42 of the '971 patent claims “[a] helmet” that includes at least two notches formed in the lower edge surface of the shell, with at least one notch being disposed on each side of the shell, and at least one of the flexible members on each side of the chin protector passes through at least one of the notches on each side of the shell.

Claims 43-47 of the '971 patent depend from claim 43.

Figures 1A and 1B of the '971 patent depict a chin strap connector 116 “pass[ing] through a ‘notch,’” '971 pat., col. 9, lns. 41-42:

FIG. 1A**FIG. 1B**

The specification discusses the role of the notches in detail, explaining that

Because . . . the ear flaps 32 of the present invention are generally disposed to lie in a plane which is substantially parallel to the longitudinal axis 61 of the outer shell 31, the notches 107, 108 of chin protector connector 34 serve to provide improved stability of the lower chin straps, or flexible members 104, by preventing the lower strap from being free to slide around the outer wall surface of ear flaps 32. The notches 107, 108 are believed to effectively "catch" the lower strap member 104 to prevent the free sliding of the lower chin strap 104. In general, if a helmet 30 is subjected to a downward impact force upon face mask 65, helmet 30 tends to roll forwardly around a virtual pivot point located slightly above the ear openings 112. This rolling effect is typically resisted by a force acting between the lower strap connectors 109, 110 and the chin 49 of the wearer of the helmet. The further away from the virtual pivot point the lower snap connection of the lower chin strap is located, the better the resistance of the helmet 30 to rolling. Notch 107 assists in resisting the undesired rolling effect by redirecting the strap's force line of action to a location farther away from the virtual pivot point.

'971 pat., col. 9, ln. 56-col. 10, ln. 10.

In an order entered July 10, 2009, I construed the term “notches” as used in claims 42-47 to mean “indentations of any shape in the lower edge of the helmet shell that prevent the lower chin straps from moving.” Dkt. #51, at 8. I rejected Riddell’s construction, which would have allowed “notches” to include “large angled portions in the lower edge surface of the helmet” but also rejected Schutt’s narrow limitation that the “notches” be either concave or v-shaped, noting that the specification provides that “other shapes of notches . . . could be utilized.” Id. at 7-8.

2. Claims requiring “compression deflection” (‘971 pat., cls. 71-72 and ‘376 pat., cls. 1, 4-6, 10-20 and 22-24)

a. Priority date of claims related to compression deflection

On May 1, 2002, Riddell filed Provisional Application No. 60/376,898. On May 1, 2003, Riddell filed Application No. 10/427,236, which resulted in the ‘971 patent. The ‘971 patent claims priority to the 2002 provisional application. During prosecution of the ‘971 patent, the patent examiner did not determine the priority date of the claims of the ‘971 patent.

On August 18, 2005, Riddell filed Application No. 11/208,233, which resulted in the ‘376 patent. This application was filed as a continuation of the 2003 application, so the ‘376 patent traces its priority claim to the 2002 provisional application as well. The patent

examiner did not determine the priority date of the claims of the '376 patent during its prosecution.

The 2002 provisional application included the following disclosure:

A variety of different padding materials can be used for layers 175-177. For example, PVC nitrile foam, rubber foam, or polycarbonate foam are examples of foam padding materials which may be utilized, as are known in the art. When multiple layers of padding material are utilized, such as in pad 152, the first layer of 176 may be one of the foregoing types of foam materials, which is generally referred to as an energy, or force attenuating, foam, and the second layer of foam padding material 177 is a "softer" foam, generally referred to as a fitting, or comfort foam, as is known in the art. Examples of materials in construction of the foregoing described pads may also be found in U.S. Patent No. 3,882,547 . . . which patent is incorporated herein by reference.

At the time the 2002 provisional application was filed, a nitrile foam called Der-Tex VN 600 PVC was known to those of skill in the art. Der-Tex refers to VN 600 PVC as an "energy absorbing" foam and at least since 1999 has maintained manufacturing specifications for the VN 600 foam indicating a minimum 25% compression deflection of 8.5 pounds per square inch. Force- or energy-attenuating PVC nitrile foam is not limited to foams that possess the claimed density and compression deflection characteristics. (The parties dispute whether VN 600 or any foam having certain minimum compression deflection properties would have been understood to be a "force-attenuating foam" as opposed to a "fitting foam.")

CF-405S, a vinyl nitrile foam used in Schutt's jaw pads, has a density of between 3.0

and 4.5 pounds per cubic foot and has a 25% compression deflection of 3.5 pounds per square inch. CF-405S is considered a shock-attenuating foam. Ensolite CIC is another shock absorbing vinyl nitrile foam that includes 25% compression deflection values lower than 8 pounds per square inch.

The May 1, 2003 application provided the following statement, which had not been included in the 2002 provisional application:

[T]he helmets 30 of the present invention . . . when compared with previously proposed helmets, provide for a substantial amount of energy, or force attenuating, foam, or padding material The energy, or force attenuating foam, or padding material, is preferably a PVC nitrile foam or a polyurethane foam, having a density of at least approximately 5 PCF (pounds per cubic foot) and at least approximately a 25% compression deflection (ASTM D-1056 standard) of 8 PSI (pounds per square inch).

During prosecution of the '376 patent, the examiner rejected density and compression claims based in part on U.S. Patent No. 5,418,257 (the "Weisman reference"), which disclosed pads having a density of 5 pounds per cubic foot. Riddell relied on the specific numeric density and compression characteristics to overcome the rejection, pointing out that Weisman did not disclose a "25% compression deflection of at least 8 pounds per square inch. In its disclosure, Applicants referenced the ASTM standard that yields these pad material properties. . . . [Weisman] makes no mention of compression deflection and the force required to achieve the percentage of deflection."

b. Claim language

Claim 71 of the '971 patent claims "[a] sports helmet" that includes a "jaw pad having a density of at least approximately 5 pounds per cubic foot and at least approximately a 25% compression deflection of 8 pounds per square inch." Claim 72 of the '971 patent depends from claim 71.

Claims 1 and 20 of the '376 patent claim "football helmet[s]." Each requires the helmet to include a "jaw pad" with the same minimum density and compression deflection as required in claim 71 of the '971 patent. Claims 4-6 and 10-19 of the '376 patent depend from claim 1 and claims 22-24 depend from claim 20.

The specification acknowledges that multiple layers of foam may be used in a jaw pad, and that in such instances, one layer may be an "energy, or force attenuating, foam" and one may be a "softer foam, generally referred to as a fitting, or comfort, foam." '971 pat., col. 12, lns. 42-47. The specification explains that the force attenuating foam "is preferably a PVC nitrile foam or a polyurethane foam, having . . . at least approximately a 25% compression deflection (ASTM D-1056 standard) of 8 PSI (pounds per square inch)." Id., col. 13, lns. 60-65. The specification does not discuss the compression deflection characteristics for the fitting foam or for a whole multi-layer jaw pad.

In the claims construction opinion, I concluded that "jaw pad" means "at least one pad that overlies a portion of the jaw of the wearer," noting that a jaw pad may have as many

as “three resilient pad members” and that the parties agreed that the jaw pad could include more than one pad. Dkt. #51, at 6-7.

3. Claims requiring “jaw flap” (‘971 pat., cls. 53-55 and 71-72 and ‘376 pat., cls. 1, 4-6, 10-19 and 25-28)

Claim 53 of the ‘971 patent claims “[a] football helmet” that includes “a jaw flap extending from each ear flap, respectively, whereby each jaw flap overlies a front portion of a mandible of the wearer.” Claim 54, which depends from claim 53, adds the requirement that the “jaw flap overlie[] the body portion of the mandible of the wearer.” Claim 55, which depends from claim 54, adds that the jaw flap must “define a central opening that exposes the protuberance portion of the mandible of the wearer.”

Claim 71 of the ‘971 patent claims “[a] sports helmet” that includes a “jaw flap extending from each ear flap towards the front region of the shell, wherein the jaw flap overlies an extent of a mandible of the wearer.” Claim 72 depends from claim 71.

Claim 1 of the ‘376 patent claims “[a] football helmet” that includes an “ear flap [that] has an integral jaw flap that extends forward from the ear flap towards the front region of the shell” and has a “lower edge, a substantially linear front edge that extends upward from the lower edge and an upper edge that is inclined from the front edge.” Claims 4-6 and 10-19 depend from claim 1. Claim 25 includes a “jaw flap” limitation identical to claim 1.

Claims 26-28 depend from claim 25.

The specification of the '971 patent describes the "jaw flap" as "extending from the ear flap forwardly toward the front of the shell and adapted to generally extend to overlie a side portion of the lower jaw of the wearer of the helmet," '971 pat., col. 2, lns. 44-47. In addition, Figure 19 (of either patent) depicts a jaw flap 33 extending from a prior art ear flap 32, with a curved dotted line 60 marking the "outer periphery" of the ear flap 32. '971 pat., col. 5, lns. 39-64.

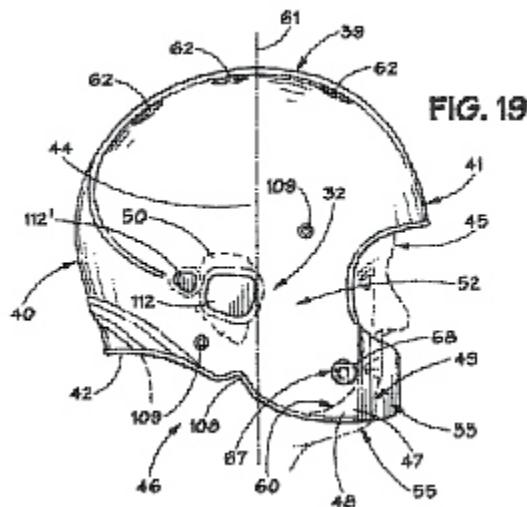


Figure 19 is an artist's depiction of an ear flap. The position of the head within the helmet depicted may not be accurate.

The specification explains that

Since FIG. 19 is not a representation of all sizes of heads and all types of chin

structures . . . it is perhaps possible that someone wearing a helmet 30 in accordance with the present invention may have a slight side portion of his or her chin extending outwardly beyond the outer periphery of the jaw flap 33. It is believed that jaw flap 33 will overlie at least the forwardly disposed portion 55 of the lower jaw of virtually all wearers of helmets 30. In this regard, the outer periphery 60, shown in phantom lines in FIG. 19, of a conventional ear flap, without the jaw flap 33 of the present invention[,] generally does not overlie a forwardly-disposed portion 55 of the lower jaw, or mandible, 47, of a wearer of a conventional helmet. Furthermore, the ear flap of a conventional football helmet virtually never overlies the chin 49 of a wearer of a conventional helmet.

‘971 pat., col. 5, ln. 53-col. 6, ln. 2.

In the claims construction opinion, I concluded that “jaw flap” did not require construction. Dkt. #51, at 5. The parties each proposed constructions that defined the term in relation to the portion of the head the jaw flap must overlie (Riddell said “side portion of the jower jaw” and Schutt said “side of the chin”), but I explained that the “claims at issue already dictate the location of the jaw flap” and concluded that the term did not require a special definition. *Id.*

4. Claims requiring connectable face guard (‘151 pat., cls. 14-19, 23 and 25)

Claim 14 of the ‘151 patent claims “[a] football helmet” that includes a shell having first and second ear openings; a face guard having a main body with a plurality of intersecting members, the face guard further having first and second receivers extending outwardly from the main body, wherein the first receiver has first and second substantially vertical members;

a first connector attached to the shell below the first ear opening, the first connector having a first channel for engaging the first vertical member and a second channel for engaging the second vertical member of the first receiver; and,
a second connector attached to the shell below the second ear opening and having a channel for engaging the second receiver.

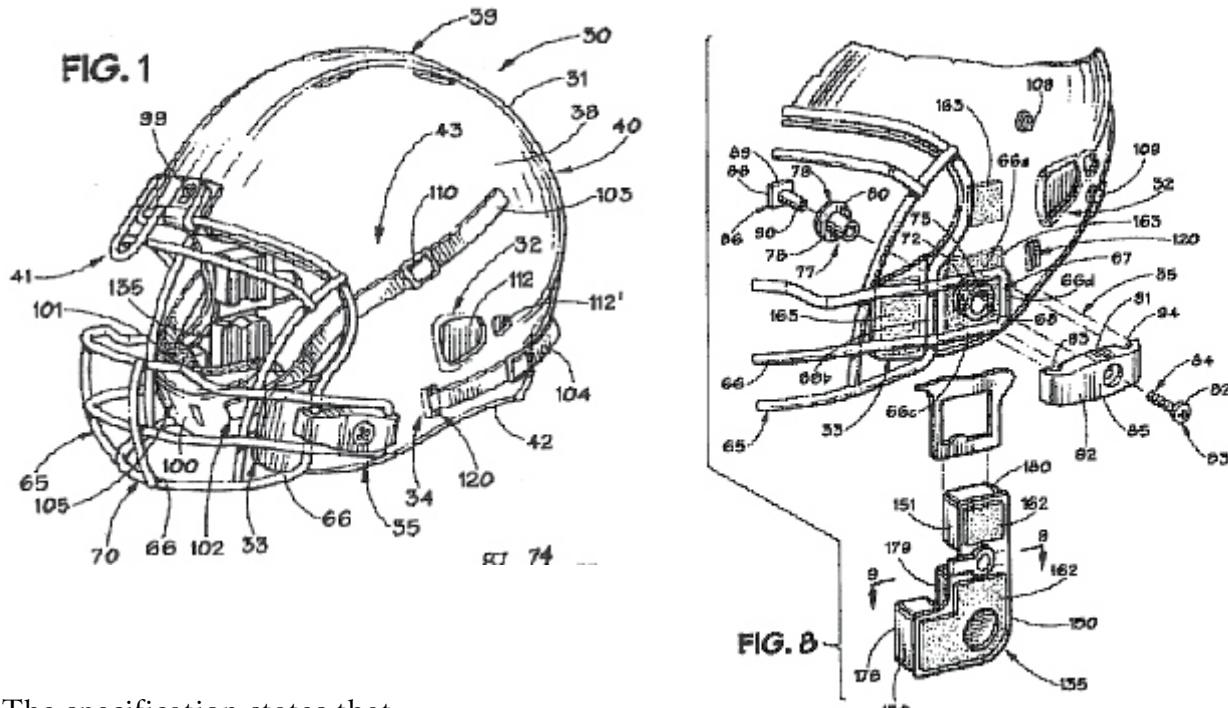
Claims 15-19 of the '151 patent depend from claim 14.

Claim 23 claims “[a] face guard connectable to a football helmet” that has a connector that secures the face guard to the helmet; a main body having an arrangement of elongated members; and a first connection segment and a second connection segment, each connection segment having two substantially vertical members, wherein the vertical members of each segment are configured to engage the connector.

Claim 25 claims “[a] football helmet” that includes

a shell;
a face guard having a main body with an arrangement of elongated members, the face guard further having a first connection segment and a second connection segment, each connection segment having two substantially vertical members, wherein the vertical members of each segment are configured to engage a connector that secures the face guard to the helmet; and
a connector that secures the face guard to the helmet.

Figures 1 and 8 of the '151 patent show football helmets connecting face guards using connectors with two channels:



The specification states that:

Each of the face guard connectors 35 of the present invention include[s] a face guard connector body member 85, 85'. With reference to Figs. 3, 4, and 8, face guard connector body member 85 will be described. Face guard connector 85 has an inner surface, or inner wall surface, 91, and outer surface, or outer wall surface, 92. Each face guard connector body member 85 has at least two channels, 93, 94, disposed in a substantially parallel, substantially non-colinear relationship, each channel 93, 94 receiving a portion of the face guard 65.

C. Prior Art

1. Revolution helmet

The Revolution helmet was introduced at least as early as January 2002. The asserted

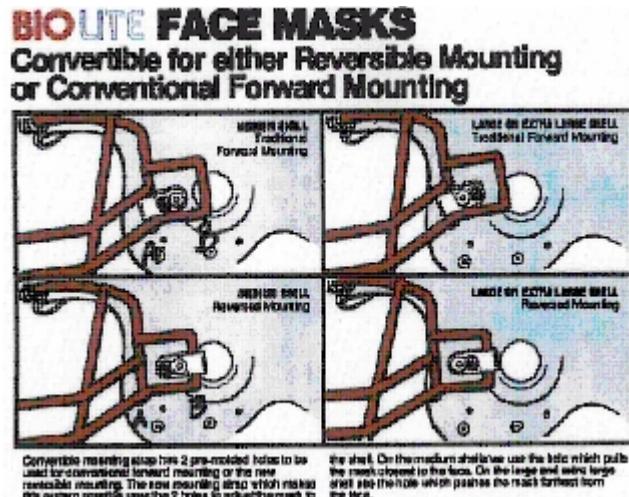
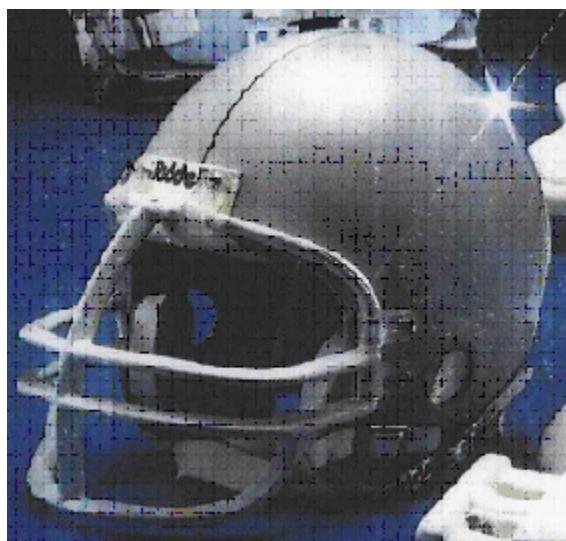
claims read on the Revolution football helmet.

2. Biolite Face Guard

In 1988, Riddell offered for sale a face guard marketed as the "Biolite Face Mask."

The Cincinnati Bengals used the Biolite on helmets between 1988 and 1989. The Biolite included a connector that secures the face guard to a football helmet, a main body having an arrangement of elongated members and two connection segments with substantially vertical members. Each of the two connection segments is configured to engage a connector.

Images of the Biolite and its connection to a helmet appear below:



D. Accused Products

1. Evidence related to “notches”

The accused products include Schutt’s DNA and ION helmets. These helmets contain a rearward-facing surface at the front lower edge of the helmet shell. When the chin strap is guided below the rearward-facing surface, the surface inhibits the strap from moving forward along the lower edge of the helmet, but it does not prevent all movement forward and does not prevent any movement of the chin strap rearward (because there is no forward-facing surface between the rearward-facing surface and the back of the helmet). (Defendant attempted to establish through witness testimony that according to “basic physics principles,” the chin strap resists a downward torque better when the strap is not contacting the rearward-facing surface, but the same witness acknowledged that he “should have included” an additional vector in his analysis of forces and only “guess[es]” that the basic result would have been the same had he considered that vector.)

Schutt’s fitting videos depict wearers placing the chin strap so that it contacts the rearward-facing surface of the accused products and then travels within the helmet toward the chin cup. At no point in the fitting video or other evidence is any explicit instruction given regarding the configuration of the chin strap in relation to the rearward-facing surface. However, some players have worn the accused helmets as shown in Schutt’s fitting videos.

2. Evidence related to “compression deflection” requirement

The standard jaw pads included in and shipped with the accused products contain a layer of a foam called CF-405S. Some of the pads also include a separate layer of equal thickness of a foam called DERTEX NX-210.

In a collision of substantial force, softer “fitting” foam may “bottom out,” meaning that it becomes substantially compressed. If a pad includes layers of both fitting foam and harder “force-attenuating” foam, the force-attenuating foam ends up absorbing the vast majority of force when the fitting foam bottoms out.

Schutt’s expert, Timothy J. Gay, conducted tests of 30 jaw pads used in accused products (10 each of three different thicknesses, including pads containing both foams and pads containing only CF-405S). None of the pads tested showed a compression deflection higher than 6.14. Gay tested the jaw pads as a whole instead of assessing the compression deflections of each layer of foam individually. When Schutt tests the properties of its jaw pads for commercial reasons, it never tests the properties of the jaw pad as a whole, but rather tests each individual layer, in conformance with the industry standard, ASTM D-1056. According to the specification sheet for each foam, CF-405S has a 25% compression deflection of 3.5 pounds per square inch and DERTEX NX-210 has a 25% compression deflection of 25 pounds per square inch.

3. Evidence related to “jaw flaps” requirement

Riddell’s expert, Newman, tested accused products by “properly” fitting them on a medium “NOCSAE” head form and comparing them to “properly” fitted Schutt Air Advantage helmets. Newman found that the accused helmets extended further forward to cover more of the lower front portion of the head form. Newman also considered the positioning of the accused helmets on the head forms in light of an anatomical drawing of a human mandible, “looking at the position of the leading edge of the [accused helmet’s] flap relative to the position of the protuberance of the head form.” (Although Newman does not describe exactly how he considered these things together, he suggests that at least mentally, he superimposed the anatomy of the mandible on the head form, stating that his conclusion can be “discerned from the positioning of the jaw flaps in the above photos in conjunction with the below photo of the mandible.” Dkt. #133, ¶ 41.)

Newman and the inventor, Ide, also compared measurements of the accused helmets with those of the Schutt Air Advantage helmet. In particular, they determined the distance from the leading edge of the flap of each helmet to the centerline of the ear opening, relying on Schutt’s fitting instructions for each that the “player’s ear openings” should be “centered with the helmet’s ear openings” in each helmet. The ear holes on the DNA and ION are asymmetrical while the ear holes on the Air Advantage are circular.

Schutt’s expert, Gay, reached different results. Gay “properly” fitted accused helmets

and three prior art helmets on a medium NOCSAE head form and tested three measurements on each: the horizontal distance from the origin of the coordinate system to the leading edge of the lower part of the helmet; the horizontal distance from the origin of the coordinate system to the position of the edge of the “eyeport” concavity; and the height of the back lower edge of the helmet from the top of the table. The results showed that the leading edge of the lower part and the eyeports of the accused helmets extended less than those of the prior art helmets in each instance. Inputting these data points into CAD drawings resulted in images showing that the accused helmets extended no farther forward on the head form than the prior art helmets.

Neither of the accused DNA and the ION helmets extends as far as the prior art ear flap depicted in Figure 19 of the ‘971 patent specification.

4. Evidence related to connectable face guards: permissible repair

Although Riddell sells its Revolution helmets with face guards, it also sells Revolution helmets to collegiate and professional teams without any face guards. Schutt offers REVO face guards, which it markets for use with the Riddell Revolution and describes in advertisements as “hav[ing] the look and feel players prefer.” The REVO may serve as a replacement part to use for repairing or reconditioning a helmet that already has a face guard, but Schutt does not restrict the use of its REVO face guards to repair purposes.

OPINION

Riddell is asserting claims 42-47, 53-55, 58-59 and 71-72 of the '971 patent against the Schutt DNA and ION football helmets; claims 1, 4-6, 10-20, and 22-28 of the '376 patent against the Schutt DNA and ION football helmets; claims 20 and 22-24 of the '376 patent against the Schutt Air XP football helmet; and claims 14-19, 23 and 25 of the '151 patent against the Schutt REVO face guard.

A. Notches

Schutt's first challenge to Riddell's patent infringement suit has to do with whether the accused helmets contain the "notches" required by asserted claims 42-47 of the '971 patent. It is undisputed that the accused helmets do not contain a v-shaped or u-shaped indentation similar to that shown in Figures 1A and 1B of the '971 patent. Instead, they contain only a rearward-facing surface at the lower edge of the helmet shell. The chin strap in the accused helmets may pass underneath the helmet in that location, much as the chin strap passes underneath the helmet in the indentation disclosed in Figures 1A and 1B. If it is so configured, the accused helmets' rearward-facing surface inhibits movement of the chin strap in a forward direction. The same surface does not prevent the chin strap from moving in a rearward-direction because there is no forward-facing surface between the rearward-facing surface and the back of the helmet to "catch" the chin strap.

The accused helmets do not contain a “notch.” As I explained in the claims construction opinion, dkt. #51, at 8, a “merely angled” surface which is all that the accused helmets have (a “rearward-facing surface” without an accompanying “forward-facing surface) is not a notch. Although the notch need not be u-shaped or v-shaped, it needs to contain both a front and a rear to be a “notch.”

Nonetheless, the absence of a notch is not fatal to Riddell’s claim. Under the doctrine of equivalents, a product that does not contain all the claimed limitations may still infringe if “there is ‘equivalence’ between the elements of the accused product or process and the claimed elements of the patented invention.” Warner-Jenkinson Co. v. Hilton Davis Chemicals Co., 520 U.S. 17, 21 (1997). To prove equivalence, a plaintiff must show that “the accused product or process contain[s] elements identical or equivalent to each claimed element of the patented invention.” Id. at 40. A given product is sufficiently “equivalent” if either the differences between the claimed limitation and any element of the product “can be fairly characterized as an insubstantial change from the claimed subject matter without rendering the pertinent limitation meaningless,” Freedman Seating Co. v. American Seating Co., 420 F.3d 1350, 1358 (Fed. Cir. 2005), or “the accused device performs substantially the same function in substantially the same way to obtain the same result as the claim limitation.” E.g., Catalina Marketing Int’l v. Coolsavings.com, Inc., 289 F.3d 801, 813 (Fed. Cir. 2002) (citations omitted).

According to Riddell, the rearward-facing surface is “equivalent” to a “notch” under either approach: the absence of a forward-facing companion is insubstantial and the rearward-facing surface performs the same function (preventing “free sliding” around ear flap), in the same way (by helmet design that blocks the chin strap) with the same result (forward movement is prevented). Riddell’s theory hinges on the notion that the only “movement” that matters to the claimed invention is forward movement of the chin strap. If that were the case, Riddell would be correct: there is no real difference between a notch and the accused helmet’s angled surface for that purpose.

However, neither the claim language nor the specification establishes what Riddell suggests about the intended purpose of the “notch.” The claim itself hints at nothing, requiring simply “notches.” Riddell relies upon a passage in the specification that offers more support: “if a helmet 30 is subjected to a downward impact force upon face mask 65, helmet 30 tends to roll forwardly,” an effect the notch was believed to “assist[] in resisting.” ‘971 pat., col. 9, ln. 65-col. 10, ln. 8. However, this particular concern is nestled in a larger discussion about the role of the notch, which states generally that the notches serve to provide improved stability of the lower chin straps, or flexible members 104, by preventing the lower strap 104 from being free to slide around the outer wall surface of ear flaps. The notches 107, 108 are believed to effectively “catch” the lower strap member 104 to prevent the free sliding of the lower chin strap 104.

Id., col. 9, lns. 59-65. In light of this general discussion and the design the patentee chose

(a “notch” with both a forward and a rearward surface), I conclude that *all* movement is important to the claimed “notches,” so a single rearward-facing surface is not “equivalent.” Although Riddell’s expert, Newman, attempts to prove otherwise, he offers nothing but the specification to support his position. As I explained, the specification does not prove Riddell’s case; therefore, Newman’s conclusory statement backing up the specification adds nothing.

Because Riddell cannot show either literally or by equivalence that the helmets infringe the asserted claims requiring a “notch,” I will grant Schutt’s motion for summary judgment as to claims 42-47 of the ‘971 patent.

B. Compression Deflection of Jaw Pad

Schutt challenges Riddell’s infringement claims related to the “compression deflection” requirement on both noninfringement and invalidity grounds. As I explain below, I conclude that Riddell has failed to show that the accused products satisfy this requirement, so Schutt is entitled to summary judgment with respect to Riddell’s infringement claim. At the same time, I conclude that the claims are entitled to the priority date of the 2002 provisional application and therefore, that Schutt cannot show these claims invalid as anticipated by the Revolution helmet. Therefore, I will deny Schutt’s motion for summary judgment on this issue, which it raised in a counterclaim.

1. Noninfringement

It is undisputed that, as a whole, the accused products' jaw pads do not satisfy the claimed 25% compression deflection range (at least 8 pounds per square inch). Schutt's expert tested 30 jaw pads from the different types of accused helmets; none had a 25% compression deflection higher than 6.14. Riddell's only evidence of noninfringement relates to a single layer in the two-layer jaw pads that has a 25% compression deflection rate of 25 pounds per square inch.

Thus, the question of infringement boils down to whether the jaw pads of the accused product *as a whole* or only the "force-attenuating" layer of the pad must satisfy the claimed compression deflection rate. Riddell points out that the specification focuses on the compression deflection rate of the force-attenuating layer alone, without regard to the fitting layer or the pad as a whole. It adds that this focus makes sense because in high-impact incidents, the fitting layer tends to bottom out, leaving the force-attenuating layer to take the shock.

Although Riddell's position makes sense, it is not what its patent claims. Despite the apparently reasonable focus in the specification on the compression deflection of the force-attenuating foam and its reference to the ASTM standard (which Riddell suggests supports testing only single layers), the patent does not claim a "force-attenuating foam layer" having the stated 25% compression deflection characteristics. Instead, the patent claims a "jaw

pad" having those characteristics. Contrary to Riddell's position, "jaw pad" is synonymous with "entire jaw pad." Because the "entire jaw pad" does not have the claimed compression deflection characteristics, Riddell cannot prevail on its claim that Schutt is infringing claims 71-72 of the '971 patent, or claims 1, 4-6, 10-20 and 22-24 of the '376 patent. I will grant Schutt's motion for summary judgment with respect to these claims.

2. Invalidity

Schutt is asserting an invalidity counterclaim for the same asserted claims, contending that they are invalid as anticipated by Riddell's own Revolution helmet, which appeared more than one year before Riddell's March 2003 application but not one year before the March 2002 provisional application. The question of invalidity comes down to whether the original disclosure in the March 2002 provisional application sufficiently staked out the eventual 25% compression deflection requirements. In that application, the applicant pointed out that "PVC nitrile foam, rubber foam, or polycarbonate foam are examples of foam padding materials which may be utilized" and described the first layer of foam in a multi-layer pad as an "energy, or force attenuating, foam." The application also incorporated by reference U.S. Patent No. 3,882,547, a patent discussing the differences between a fitting foam and a "principal energy absorbing" or "slow recovery" foam.

In a case in which a parent application describes a claimed matter using language

different from that which is ultimately claimed in the patent, the question is whether the parent application “reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject matter.” Martek Biosciences Corp. v. Nutrinova, Inc., 579 F.3d 1363, 1369 (Fed. Cir. 2009) (citations omitted). When an application fails to specifically mention a limitation that later appears in the claims, the claim may still be entitled to the priority date of the parent application if “one skilled in the art would recognize upon reading the [parent application] that the new language reflects what the specification shows has been invented.” All Dental Prodx, LLC v. Advantage Dental Products, Inc., 309 F.3d 774, 779 (Fed. Cir. 2002).

In this case, the claimed matter involves a specific minimum density and “25% compression deflection” and the parent application mentions only “force-attenuating” foam generally and lists a few examples. The facts suggest that although certain types of force-attenuating foam are above the minimum density and deflection, some are not.

Schutt’s contention is that the disclosure is too “vague” to give notice to one of skill in the art, citing Lockwood v. American Airlines, Inc., 107 F.3d 1565, 1572 (Fed. Cir. 1997), which states:

While the meaning of terms, phrases, or diagrams in a disclosure is to be explained or interpreted from the vantage point of one skilled in the art, all the limitations must appear in the specification. The question is not whether a claimed invention is an obvious variant of that which is disclosed in the specification. Rather, a prior application itself must describe an invention,

and do so in sufficient detail that one skilled in the art can clearly conclude that the inventor invented the claimed invention as of the filing date sought.

See also Amgen Inc. v. Hoechst Marion Roussel, Inc., 314 F.3d 1313, 1330 (Fed. Cir. 2003) (applicant for patent must “recount his invention in such detail that his future claims can be determined to be encompassed within his original creation”). In this case, however, the disclosure in the provisional application encompassed force-attenuating foams that would fall within the later claimed requirement, regardless whether it also encompassed foams that would not. Because foams existed that satisfied the claim language and were known in the art, I am persuaded that the application sufficiently notified a person of skill in the art that the inventor possessed the claimed invention. (The parties submit supplemental authority, Anascape, Ltd. v. Nintendo of America Inc., 601 F.3d 1333, 1339 (Fed. Cir. 2010), but that case is inapposite. It denies a priority date for *broader* material than that found in the parent application, whereas in this case the claimed material is narrower.) Therefore, I will deny Schutt’s counterclaims for invalidity with respect to claims requiring a certain “compression deflection.”

C. Jaw Flap

Schutt challenges Riddell’s claims related to the “jaw flap” requirement on both noninfringement and invalidity grounds, contending that the term is insolubly ambiguous

(and therefore indefinite) and that Riddell cannot show that the accused products have the required “jaw flap.”

1. Invalid for indefiniteness

The standard for indefiniteness is high. “If the meaning of the claim is discernible, even though the task may be formidable and the conclusion may be one over which reasonable persons will disagree,” the claim is sufficiently clear to avoid indefiniteness. Exxon Research and Engineering Co. v. United States, 265 F.3d 1371, 1375 (Fed. Cir. 2001). A claim is indefinite only if the “claim is insolubly ambiguous, and no narrowing construction can properly be adopted.” Id.

The question of definiteness is tied to the question of validity. Honeywell International, Inc. v. International Trade Commission, 341 F.3d 1332, 1338-42 (Fed. Cir. 2003) (“If the court determines that a claim is not ‘amenable to construction,’ then the claim is invalid as indefinite under 35 U.S.C. § 112, ¶ 2.”). It is for this reason that “close questions of indefiniteness” must be resolved in favor of the patent holder and claim language should be narrowed where possible to avoid indefiniteness. Exxon, 265 F.3d at 1375, 1380 (“we protect the inventive contribution of patentees, even when the drafting of their patents has been less than ideal.”).

Schutt contends that it cannot tell what a “jaw flap” is. This is a shift from its earlier

position that the term *can* be construed and means “a flap that overlies at least the side of the chin of a wearer.” Leaving to one side the inherent tension in these alternative theories, the real problem for Schutt is that the term “jaw flap” delineates the scope of the claims clearly enough to be construed. Although “jaw flap” is not itself a well-established term in the field, it appears in relation to “ear flap,” which is such a term. The parties have agreed that an “ear flap” is a “flap that overlies the ear, portion of the cheek, and a rear portion of the jaw of a wearer.” The asserted claims uniformly describe the jaw flap as “extending forward” from the ear flap and describe other particular claim-specific features of the claimed jaw flap. I concluded that the term required no construction for the very reason that the meaning of the term is readily apparent. Because Schutt disagrees, I shall spell it out: the jaw flap is a flap that extends forward from the ear flap. The parties agree what an “ear flap” is, so the rest should be simple.

Schutt’s indefiniteness argument centers on its concern with variations in the prior art and with Figure 19, which purports to distinguish an “ear flap” from a jaw flap using a dotted line. However, Schutt has not argued that the claims are invalid as anticipated or obvious and has not attempted to perform such an analysis, so these concerns are irrelevant to the present motion. As for Figure 19, it is an artist’s rendering and not drawn to scale, so its depiction of where an ear flap ends and a jaw flap starts must be taken with a grain of salt. (From the looks of it, the “ear flap” in Figure 19 extends well beyond the parties’

agreed-upon meaning, for example.)

One concern of Schutt's is legitimate: the "ear flap" does not necessarily have a distinctive end. Where the "ear flap" (covering the "ear, portion of the cheek and a rear portion of the jaw") ends and a "jaw flap" begins ("extending forward" from there) is not an exact science. But it need not be. There are numerous cases in which relative terms such as "near," or "adapted to" are found to be not insolubly ambiguous, despite the fact that there is no clear cutoff between "near" and "not near," for example. Power-One, Inc. v. Artesyn Technologies, Inc., 599 F.3d 1343, 1348 (Fed. Cir. 2010) (collecting cases). This lack of clarity is distinct from that found in terms held to be insolubly ambiguous, which may be subjective, Datamize, LLC v. Plumtree Software, Inc., 417 F.3d 1342, 1347 (Fed. Cir. 2005) ("aesthetically pleasing" indefinite), or lack guidance, Halliburton Energy Services, Inc. v. M-I LLC, 514 F.3d 1244, 1254 (Fed. Cir. 2008) ("fragile gel" indefinite because person of ordinary skill in the art could not determine when product is sufficiently "fragile" to satisfy claims).

In conclusion, I am not persuaded that "jaw flap" is insolubly ambiguous. Instead, it means "flap extending forward from a flap that overlies the ear, portion of the cheek, and a rear portion of the jaw of a wearer" (the "ear flap"). There may be additional questions about the meaning of "jaw flap" that this construction does not resolve. For example, must a jaw flap contain some particular distinctive feature showing it to be an "extension" of an

ear flap, or does an “oversized” ear flap (such that it extends forward beyond the area covered in the parties’ agreed-upon definition) automatically include a jaw flap? At this point, however, it is not necessary to decide this question because Schutt’s present noninfringement arguments can be overcome without deciding the question and the parties have not articulated their positions on the issue. (This question may matter if Riddell wishes to use its measurements from the center of the ear hole to the front edge or if Schutt plans to argue invalidity using certain prior art “ear flaps.” The parties may move in limine if they require clarification of the scope of “jaw flaps.”)

2. Noninfringement

Schutt contends that Riddell cannot show that the accused helmets contain a “jaw flap” because Newman’s testing is faulty and the accused helmets do not have a jaw flap extending beyond an “ear flap.” Schutt emphasizes that Newman’s testing involved comparing the accused helmets with prior art Air Advantage helmets. As Schutt points out, a plaintiff cannot establish infringement by simply comparing the accused product to an embodiment of prior art. Cf. Johnson & Johnston Assocs., Inc. v. R.E. Serv. Co., 285 F.3d 1046, 1052 (Fed. Cir. 2002) (“Infringement, either literally or under the doctrine of equivalents, does not arise by comparing the accused product . . . with a commercialized embodiment of the patentee.”). But Schutt is oversimplifying Newman’s testing. He did

not merely compare the accused helmets with the Air Advantage. He also fitted the accused helmets on a NOCSAE medium head form and considered the position of the helmets' flaps in relation to a human mandible. This assessment alone suffices to allow a determination whether the flaps "extend forward" from the ear flaps, in light of the parties' agreed-upon definition of ear flaps.

Newman's use of the Air Advantage is unnecessary. However, even though the Air Advantage cannot serve as a "baseline" for ear flaps, to the extent it approximates the edge of an ear flap (a point about which the parties' experts can disagree), its positioning on the NOCSAE head form can serve to emphasize any extension beyond that point (or lack thereof). Similarly Newman's measurements from the ear hole to the front edge of the helmet are unnecessary.

Schutt also argues that Newman has conceded noninfringement by admitting that the accused helmets do not extend as far as Figure 19 shows the ear flap extends. However, as I explained above, Figure 19 is not drawn to scale. It should not be used as a definitive guide for determining the end point of an ear flap with respect to the human head, both for that reason and because the parties' definition already does that: an ear flap may end at the rear portion of the jaw. Newman's "concession" that the accused products do not extend beyond the drawn boundary is meaningless. (As I also explained, there is room to question whether an "ear flap" always ends at the rear portion of the jaw or does so only if a flap markedly

“extends from” the shape that makes up the ear flap. That question is not important here because the accused products appear to contain such an extension and Schutt has not argued otherwise.)

The parties dispute whether the accused helmets extend far enough to be considered “jaw flaps” because the experts reached different results when fitting the accused helmets on the NOCSAE head form. Which expert is correct is a matter for the jury. (At this stage, Schutt does not attempt to challenge Newman’s specific conclusions related to whether the accused helmets’ flaps cover different portions of the mandible as required by the distinct claims, so it is not necessary to go over those findings one-by-one.) Because a reasonable jury could agree with Newman that the accused helmets’ flaps extend forward from the ear flap and cover the various portions of the mandible required by the asserted claims, I will deny Schutt’s motion for summary judgment with respect to Riddell’s claim that the accused helmets infringe claims 53-55 and 58-59 of the ‘971 patent and claims 25-28 of the ‘376 patent. (Although the “jaw flaps” requirements also appear in claims 71-72 of the ‘971 patent and claims 1, 4-6 and 10-19 of the ‘376 patent, I have already concluded that Riddell cannot show infringement of those claims because of the “jaw pads” limitation included in those claims.)

D. Connectable Face Guards

Schutt's final challenge relates to the asserted claims in the '151 patent directed at connectable face guards. Schutt has two arguments. First, it asserts the defense of "permissible repair." As Riddell acknowledges, Schutt does not directly infringe any asserted claim of the '151 patent. Riddell's theory is that Schutt is infringing indirectly by providing REVO face guards for use with the Revolution helmets. Under the doctrine of permissible repair, a manufacturer may provide unpatented replacement parts for a product that as a whole is patented without indirectly infringing. Aro Manufacturing Co., Inc. V. Convertible Top Replacement Co., 365 U.S. 336, 345-46 (1960). (The face guards claimed in the '151 patent are not patented as independent inventions; all of the asserted claims of the '151 patent require a football helmet or use with a football helmet.)

As Schutt points out, the doctrine of permissible repair should be applied "broadly." Under case law, permissible repair extends not just to replacement of broken or worn out parts, but to replacement of working parts as well. Surfco Hawaii v. Fin Control Systems Pty., Ltd., 264 F.3d 1062, 1065-66 (Fed. Cir. 2001). As the court explained, "[t]he right of 'repair' follows from the exhaustion of a patentee's right to control the disposition of a patented article after it has been sold." Id. Although the notion of patent "exhaustion" extends the right of repair beyond standard "repair," it also limits the right of repair to only those instances in which the patented article has been sold, known as a "first sale." Jazz

Photo Corp. v. Int'l Trade Comm'n, 264 F.3d 1094 (Fed.Cir.2001); see also United States v. Masonite Corp., 316 U.S. 265, 278 (1942) (exhaustion of the patent right depends on “whether or not there has been such a disposition of the article that it may fairly be said that the patentee has received his reward for the use of the article”).

This limitation is the sticking point for Schutt. Although it submits evidence that its REVO face guard *can* be used in repairing exhausted products, there is evidence that would allow an inference that some REVO face guards are attached to non-exhausted products, Revolution helmets that Riddell sells *without* face guards. Riddell submits evidence that it sells some helmets separate from face guards to college and professional teams, and it is undisputed that the REVO is sold without a restriction that limits its use to repairs. Riddell’s sale of helmets without face guards does not “exhaust” Riddell’s right because the helmets sold without face guards do not receive patent protection under the asserted claims of the ‘151 patent (which require a face guard). Because a reasonable jury could infer that at least some REVOs are being used on non-exhausted Revolution helmets, the doctrine of permissible repair cannot establish non-infringement. (It may affect total damages, of course, but that is not a question currently at issue.)

Schutt’s second defense is invalidity. According to Schutt, claims 23 and 25 of the ‘151 patent are invalid as anticipated by the Biolite face guard. As Riddell points out, the Biolite alone could not anticipate these claims because it is merely a face guard and the

claims require additional products. However, the Biolite was used in conjunction with standard football helmets prior to this time, so that argument does not work. (Biolite “plus helmet” can still constitute invalidating prior art.)

Riddell’s winning argument relates to the nature of the “connectors” claimed in claims 23 and 25. As Riddell points out, the Biolite was never shown in a configuration in which both of the vertical segments on each side of the face guard were simultaneously engaged by a connector, and as I explain below, the asserted claims require such a multi-channel connector. This means the Biolite “plus helmet” configuration does not disclose every claim limitation in the asserted claims and therefore does not invalidate the claims.

Identical claim language in each asserted claim describes the required connector as simply “a connector that secures the face guard to the helmet.” However, each claim also includes a separate requirement that the face guard must have a “first connection segment and a second connection segment, each connection segment having two substantially vertical members, wherein the vertical members of each segment are configured to engage the [or ‘a’] connector.” This language suggests that the “connector” should be designed to engage both vertical members of the connection segment, but does not establish it. What seals the deal, however, is the specification’s description of the “present invention” as including “a face guard connector body member 85, 85’,” (85 and 85’ are both two-channel connectors), ‘151 pat., col. 7, lns. 62-64, followed by the statement that “[e]ach face guard connector body

member 85 has at least two channels 93, 94, disposed in a substantially parallel, substantially non-colinear relationship, each channel 93, 94 receiving a portion of the face guard.” Id., col. 7, ln. 67 - col. 8, ln. 4. This limiting language in the specification confirms that the “connector” described in the claimed language must include two channels. Cf. Verizon Services Corp. v. Vonage Holdings Corp., 503 F.3d 1295, 1308 (Fed. Cir. 2007)) (“When a patent thus describes the features of the ‘present invention’ as a whole, this description limits the scope of the invention.”).

Because a jury could find that some of the REVO faceguards sold were used with non-exhausted Revolution helmets, I will deny Schutt’s motion for summary judgment with respect to Riddell’s claim that Schutt indirectly infringes claims 14-19, 23 and 25 of the ‘151 patent by selling its REVO face guard for use with the Revolution helmet. Moreover, because the Biolite configuration did not disclose a two-channel connector, I will deny Schutt’s motion for summary judgment with respect to its counterclaim that claims 23 and 25 of the ‘151 patent are invalid as anticipated by the Biolite.

E. Willfulness

Schutt also seeks summary judgment on Riddell’s claim of willful infringement. I will grant that motion. Under In re Seagate Technology, LLC, 497 F.3d 1360, 1371 (Fed. Cir. 2007), the first element of willfulness is “that the infringer acted despite an objectively high

likelihood that its actions constituted infringement of a valid patent,” a matter that is decided without regard to “the state of mind of the accused infringer.” A defendant may get off the hook under In re Seagate by identifying an objectively reasonable defense, even if the court ultimately disagrees with the defense. E.g., Cohesive Technologies, Inc. v. Waters Corp., 543 F.3d 1351, 1374 (Fed. Cir. 2008) (finding of no willful infringement upheld because claim term was “subject to a reasonable [noninfringing] construction”); Wisconsin Alumni Resource Foundation v. Intel Corp., 656 F. Supp. 2d 898, 923 (W.D. Wis. 2009) (finding no willful infringement because under one reasonable reading of certain letters, plaintiff gave away right to exclude defendant from using invention). Schutt contends that its defenses are “objectively reasonable.”

Only three groups of claims remain: those that survived Schutt’s challenge that the accused products do not have a “jaw flap,” those that survived a challenge to permissible repair, and as a subset, those that survived the challenge related to the prior art faceguard. With respect to the first group, I agree that Schutt put forth an objectively reasonable defense, not because it argued for indefiniteness, but rather because it has put forth a “legitimate defense to [the] infringement claim.” Honeywell International Inc. v. Universal Avionics Systems Corp., 585 F. Supp. 2d 636, 642 (D. Del. 2008). Schutt’s expert has fitted the accused helmets on NOCSAE head forms and performed calculations on them that support a finding that the helmets’ flaps do not extend further out than those of the prior

art. Just as a “reasonable” but incorrect construction of the claim language undermines a finding that the likelihood of infringement is “objectively high” under In re Seagate, so does an expert’s test showing noninfringing results, even if the expert is ultimately proven wrong.

The third group also involved an “objectively reasonable” defense. Although I concluded that the Biolite face guard plus helmet did not anticipate the claims, it would not be unreasonable to read the claim as allowing both single and multi-channel connectors. Not only did the claim language itself require only “a connector,” but there is some room to argue that the discussion in the specification did not require a multi-channel connector.

As for the second group, I hesitate to conclude that there was no “objectively high likelihood” of infringement. Schutt’s permissible repair defense was weak because it does not restrict its face guards to use for repair alone and it had no evidence suggesting that Riddell sold its Revolution helmets *only* with face guards included.

Nonetheless, Schutt is entitled to summary judgment because Riddell has failed to show that it meets the second prong of In re Seagate with respect to this claim. The second prong requires that the “objectively defined risk . . . was either known or so obvious that it should have been known to the accused infringer.” In re Seagate, 497 F.3d at 1371. Riddell offers no evidence that Schutt had any reason to believe Riddell sold its helmets independently of its face guards, so there is no basis to infer that Schutt should have known that Riddell had not “exhausted” its patent rights in the Revolution helmets. Under these

circumstances, I conclude that summary judgment of no willful infringement is warranted.

ORDER

IT IS ORDERED that

1. The motion for summary judgment filed by defendant Schutt Sports, Inc., dkt. #151, is GRANTED in part and DENIED in part:
 - a. the motion is GRANTED with respect to plaintiff Riddell, Inc.'s claims that Schutt's helmets infringe claims 42-47 and 71-72 of U.S. Patent No. 6,934,971 and claims 1, 4-6, 10-20 and 22-24 of U.S. Patent No. 7,240,376 and with respect to Riddell's claim for willful infringement; and
 - b. the motion is DENIED with respect to Riddell's claims that Schutt's helmets infringe claims 53-55 and 58-59 of U.S. Patent No. 6,934,971 and claims 25-28 of U.S. Patent No. 7,240,376; and that Schutt's REVO face guards indirectly infringe claims 14-19, 23 and 25 of U.S. Patent No. 7,036,151; and Schutt's counterclaims that claims 71-72 of U.S. Patent No. 6,934,971 and claims 1, 4-6, 10-20, 22-24 of U.S. Patent No. 7,240,376 are invalid as anticipated by the Revolution helmet; that claims 53-55, 58-59 and 71-72 of U.S. Patent No. 6,934,971 and claims 1, 4-6 and 10-19 are invalid as indefinite; and that claims 23 and 25 of U.S. Patent No. 7,036,151 are invalid as anticipated by the Biolite.

2. Schutt's motion to exclude portions of the testimony of James Newman, dkt. #147, is DENIED as unnecessary.

Entered this 19th day of July, 2010.

BY THE COURT:
/s/
BARBARA B. CRABB
District Judge